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ABSTRACT

This overview of the Massachusetts Comprehensive Assessment System (MCAS) tests is designed to help schools implement the Massachusetts"Curriculum Frameworks." For this fourth administration of the MCAS tests in 2001, the design of the tests remains essentially the same, but there are some changes highlighted in this overview. The first chapter explains the intent and structure of this document. The second chapter provides an overview of the MCAS and highlights updates related to administration in 2001. Chapters 3 through 6 each contain an overview of MCAS test specifications, administration, and features for one content area. Sample items are included for the tests being given for the first time in 2001. The content areas are: (1) English Language Arts; (2) Mathematics; (3) Science and Technology/Engineering; and (4) History and Social Science.Seven appendixes contain learning standards from the Curriculum Frameworks. (SLD)

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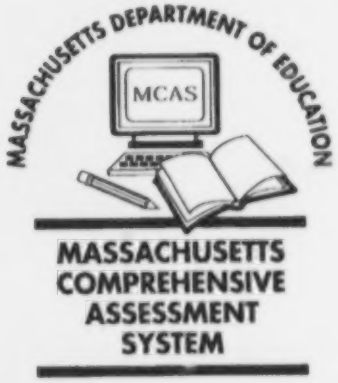

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Overview of the MCAS 2001 Tests

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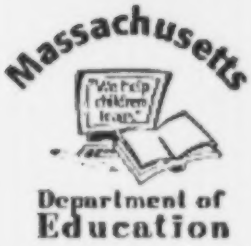

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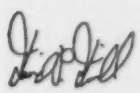
Commissioner's Foreword

Dear Colleagues:

In preparation for the fourth administration of the Massachusetts Comprehensive Assessment System state tests, I am pleased to present *The Massachusetts Comprehensive Assessment System: Overview of the MCAS 2001 Tests.* The design of MCAS tests remains essentially the same, but there are some important changes to the MCAS testing schedule as we prepare to test across different grade levels this year.

We also intend this overview to help schools implement the Massachusetts *Curriculum Frameworks.* I believe that teachers and administrators will find the information on MCAS tests and the sample materials provided in this publication to be especially helpful in their effort to bring the learning standards to life in classrooms throughout Massachusetts.

Sincerely,



David P. Driscoll
Commissioner of Education

Table of Contents

Commissioner's Foreword

I. Purpose and Structure of This Document 1

II. Overview of the Massachusetts Comprehensive Assessment System (MCAS) 5
- A. MCAS Overview 7
- B. The MCAS 2001 Tests and Reporting 8
- C. What's New for MCAS 2001? 13

III. MCAS 2001 English Language Arts Tests 15
- A. MCAS *English Language Arts Guide* Update 17
- B. What's New for ELA 2001? 19
- C. English Language Arts 2001 Test Administration Schedule 20
- D. Grade 3 MCAS Reading Test 21
- E. Grade 4 MCAS English Language Arts Test 33
- F. Grade 7 MCAS English Language Arts Test 36
- G. Grade 8 MCAS English Language Arts Test 47
- H. Grade 10 MCAS English Language Arts Test 50

IV. MCAS 2001 Mathematics Tests 53
- A. New 2000 *Mathematics Curriculum Framework* 55
- B. MCAS *Mathematics Guide* Update 56
- C. What's New for Mathematics 2001? 58
- D. Mathematics 2001 Test Administration Schedule 58
- E. Grade 4 MCAS Mathematics Test 59
- F. Grade 6 MCAS Mathematics Test 62
- G. Grade 8 MCAS Mathematics Test 67
- H. Grade 10 MCAS Mathematics Test 70

V. MCAS 2001 Science and Technology/Engineering Tests 73
- A. New 2000 *Science and Technology/Engineering Curriculum Framework* 75
- B. MCAS *Science & Technology Guide* Update 76
- C. What's New for Science and Technology/Engineering 2001? 76
- D. Science and Technology/Engineering 2001 Test Administration Schedule 77
- E. Grade 5 MCAS Science and Technology/Engineering Test 78
- F. Grade 8 MCAS Science and Technology/Engineering Test 85
- G. Grade 9-10 MCAS Science and Technology/Engineering Question Tryouts 87

VI. MCAS 2001 History and Social Science Tests 89
A. MCAS *History and Social Science Guide* Update 91
B. What's New for History and Social Science 2001? 92
C. History and Social Science 2001 Test Administration Schedule 92
D. Grade 5 MCAS History and Social Science Test 93
E. Grade 8 MCAS History and Social Science Test 99
F. Grade 10 MCAS History and Social Science Test 102

Appendix A: English Language Arts Reading Passage Copyrights 105

Appendix B: English Language Arts Curriculum Framework *Learning Standards Assessed by MCAS* 109

Appendix C: Sample Grade 6 MCAS Mathematics Reference Sheet and Tool Kit 115

Appendix D: 2000 Mathematics Curriculum Framework *Grade 6 Learning Standards Assessed by MCAS* 119

Appendix E: New 2000 Mathematics Curriculum Framework *Learning Standards* 125

Appendix F: 2000 Science and Technology/Engineering Curriculum Framework *Learning Standards for Grades 3-5 Assessed by MCAS* 133

Appendix G: History and Social Science Curriculum Framework *Learning Standards and Core Knowledge Topics Assessed by MCAS* 139

I. Purpose and Structure of This Document

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Document Purpose

The purpose of this document is to provide local educators with an overview of the Massachusetts Comprehensive Assessment System (MCAS) 2001 tests, highlighting the new tests that will be administered for the first time in 2001.

This document provides

- information on recent refinements to selected Massachusetts *Curriculum Frameworks* and the effects of those changes on the MCAS 2001 tests
- details about test design for the MCAS 2001 tests
- sample test questions (items) for the MCAS tests being administered for the first time in 2001

Please note that some information in this document updates and supersedes information given in the previously published MCAS *Guides*. The *Guides* provide additional details on the content and structure of the MCAS tests in their respective content areas:

- *Guide to the Massachusetts Comprehensive Assessment System: English Language Arts* (February 1998)
- *Guide to the Massachusetts Comprehensive Assessment System: Mathematics* (January 1998)
- *Guide to the Massachusetts Comprehensive Assessment System: Science & Technology* (January 1998)
- *Guide to the Massachusetts Comprehensive Assessment System: History and Social Science, Spring 1999*

Document Structure

This first chapter explains the overall intent and structure of this document.

Chapter II provides an overview of the Massachusetts Comprehensive Assessment System and highlights updates related to the MCAS 2001 test administration.

Chapters III through VI each contain an overview of MCAS test specifications, administration, and features for one content area. Sample items are included for the tests being administered for the first time in 2001.

Important Note Regarding Sample Materials

The sample materials included in this document illustrate how *Framework* learning standards will be assessed by MCAS tests. Please note that these sample materials address only a select number of learning standards and do not represent the entire range of items that appear on actual MCAS tests.

Also note that these sample items are not formatted as they appear in actual MCAS test booklets, nor do they include all student directions or the amount of response space provided to students during test administration.

II. Overview of the Massachusetts Comprehensive Assessment System (MCAS)

II. Overview of the Massachusetts Comprehensive Assessment System (MCAS)

A. MCAS Overview

The Massachusetts Comprehensive Assessment System (MCAS) is the Commonwealth's statewide assessment program developed in response to the *Education Reform Law of 1993*. The primary purposes of MCAS are

- to measure the performance of individual students, schools, and districts based on the state standards outlined in the Massachusetts *Curriculum Frameworks*
- to raise student achievement
- to improve classroom instruction
- to determine competency in English language arts and mathematics in order to award high school diplomas

The 1993 Education Reform Law mandates that *all* students in the tested grades who are educated with Massachusetts public funds participate in MCAS, including

- students enrolled in public schools
- students enrolled in charter schools
- students enrolled in educational collaboratives
- students enrolled in private schools receiving special education that is publicly funded by the Commonwealth, including Chapter 766-approved private schools within and outside Massachusetts
- students receiving educational services in institutional settings
- students in the custody of either the Department of Social Services or the Department of Youth Services
- students with disabilities
- students with limited English proficiency[1]

[1] LEP students who have been enrolled in United States schools for three or fewer years AND are ineligible to take the Spanish-language version of MCAS are not required to participate in MCAS testing. For further information, see the publication, *Requirements for the Participation of Students with Limited English Proficiency, (Spring 2000 Update)*.

B. The MCAS 2001 Tests and Reporting

Massachusetts *Curriculum Frameworks*

Massachusetts students are tested by MCAS in the following content areas:

- English Language Arts (ELA)
- Mathematics
- Science and Technology/Engineering
- History and Social Science

MCAS tests are based exclusively on the learning standards (and, in History and Social Science, on core knowledge topics) contained in the Massachusetts *Curriculum Framework* for the content area tested.[2]

MCAS test questions (items) focus on general *Framework* learning standards and/or their corresponding grade-specific standards. Some items incorporate standards identified for preceding grade levels, consequently, students are often required to demonstrate cumulative content knowledge and skills (e.g., grade 10 students may be tested on learning standards identified in a *Framework* from pre-Kindergarten through grade 10).

Item Types

Four types of test items are used on MCAS tests:

- Multiple-choice questions are included on all MCAS tests except ELA Composition, and require students to select the correct answer from a list of four options.

  Multiple-choice items are machine-scored by optical scanners. Correct answers are assigned a score of 1 point and incorrect answers are assigned a score of 0 points.

- Open-response questions are included on all MCAS tests except ELA Composition, and require students to generate, rather than recognize, a response. Depending on the content area tested, students provide a written response of one or two paragraphs, or create a chart, table, diagram, or graph.

  Open-response items receive a score from 0-4, based on item-specific rubrics used by trained professional scorers.

- Short-answer questions are included only on MCAS Mathematics tests, and require students to generate a brief response, usually a numeric solution to a computation or a short statement.

  Short-answer items are scored by trained scorers. Based on an item-specific rubric, correct answers are assigned a score of 1 point and incorrect answers are assigned a score of 0 points.

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[2] Please note that certain learning standards, including all learning standards in the *English Language Arts Curriculum Framework*'s *Media* strand, cannot be assessed using a large-scale paper-and-pencil format, and are not assessed by MCAS.

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- Writing prompts are included only on MCAS ELA Composition tests, and require students to respond by creating a written composition.

  ELA Compositions are scored in two areas by trained scorers:

  - Topic Development (2–12 points)
  - Standard English Conventions (2–8 points)

Common Items/Matrix-Sampled Items

Most MCAS Student Test Booklets are issued in several different forms at each grade level.[3] Approximately 80% of the test items in any test booklet are *identical* (common items) on all test forms. The remaining 20% of the test items in each test booklet *vary* (matrix-sampled items) from form to form.

Individual student test scores are based exclusively on common items.

Matrix-sampled items are used to equate test forms across MCAS administrations and to field-test items for possible future use as common items. In *School* and *District Reports*, the *Subject Area Subscore* pages include data generated from responses to both common and matrix-sampled items; this is the only instance in which matrix-sampled items are used to generate MCAS results. All other school and district results are generated from student responses to common items only.[4]

Untimed Test Sessions

MCAS tests are designed to be untimed. While the recommended time allotment per session should be adequate for most students, additional time is provided, *as necessary, for any student unable to complete a test session within the allotted time*. The amount of additional time per session generally considered to be reasonable may range from five minutes to 30 minutes.

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[3] The MCAS ELA Composition Student Test Booklet and the ELA Composition Make-Up Student Test Booklet are each issued in one form only, using different writing prompts; both prompts are considered common items.

In addition to the standard forms of all other content area test booklets, three non-standard versions of each booklet (large-print, Braille, and Spanish-language) are available for use by eligible students. For further information on which students are eligible to use these non-standard Student Test Booklets, please refer to the MCAS documents, *Requirements for the Participation of Students with Disabilities (Spring 2000 Update)* and *Requirements for the Participation of Students with Limited English Proficiency (Spring 2000 Update)*. Both publications are available on the Department's website at www.doe.mass.edu/mcas. Updates to these documents as they relate to the MCAS 2001 administration are expected in the winter semester of the 2000–2001 school year.

[4] For further information on the purpose and use of matrix-sampled items, please refer to the MCAS documents, *Release of Spring 2000 Test Items* and *Guide to Interpreting the Spring 2000 MCAS Reports for Schools and Districts*.

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Grades and Content Areas Tested in Spring 2001

Table 1. MCAS 2001 Tests

Grade Tested	*Content Area Tested*				
	English Language Arts		Mathematics	Science and Technology/Engineering	History and Social Science
	Composition (Writing)	Language and Literature (Reading)			
3		X			
4	X	X	X		
5				X	X
6			X		
7	X	X			
8	X*	X*	X	X	X
9				(see note)	
10	X	X	X	(see note)	X

* This will be the final administration of the grade 8 English Language Arts test (both components).

NOTE: The one grade 10 MCAS Science & Technology test administered in previous years will be replaced in the future by six content-specific tests to be taken by students in grades 9 and 10. Separate tests will be given in the five areas of biology, chemistry, physics (introductory), earth science, and technology/engineering, and an integrated science test will be given that includes biology, chemistry, physics, and earth science. Question Tryouts in these content areas will take place in the spring of 2001. Please see chapter V, section G of this document for further information.

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Reporting of MCAS Test Results

MCAS test results are reported through scaled scores and performance levels for individual students, schools, and districts.

Table 2. MCAS Performance Levels

MCAS Performance Level	General Description	Scaled Score Range
Advanced	Students at this level demonstrate • a comprehensive and in-depth understanding of rigorous subject matter • the ability to provide sophisticated solutions to complex problems	260-280
Proficient	Students at this level demonstrate • a solid understanding of challenging subject matter • the ability to solve a wide variety of problems	240-259
Needs Improvement	Students at this level demonstrate • partial understanding of subject matter • the ability to solve some simple problems	220-239
Failing	Students at this level demonstrate • minimal understanding of subject matter • an inability to solve simple problems	200-219

For additional information about scaled scores and performance levels, please refer to the MCAS publication, *Guide to Interpreting the Spring 2000 MCAS Reports for Schools and Districts*, available on the Department's website at www.doe.mass.edu/mcas.

The following reports of MCAS test results are among those issued in the fall following each year's MCAS administration:

- *Parent/Guardian Reports* (each report contains confidential student data)
- *School Report*
- *Test Item Analysis Report* (this report contains confidential student data)
- *District Report*
- *Summary of District Performance*
- *State Report of Results*
- *Technical Report*

Parent/Guardian Reports and *Test Item Analysis Reports* contain confidential student data that are not released to the public.

Please see the Department's website at www.doe.mass.edu/mcas for further information about all of these annual reports.

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Table 3 below shows how results for each 2001 MCAS test will be reported.

Table 3. MCAS Results Reported in 2001

MCAS Test	Results Reported in 2001
Grade 3 Reading	Fully reported: student, school, and district scaled scores and performance levels NOTE: Results will be based ONLY on multiple choice items.
Grade 4 ELA	Fully reported: student, school, and district scaled scores and performance levels
Mathematics	Fully reported: student, school, and district scaled scores and performance levels
Grade 5 Science and Technology/Engineering	Only *Test Item Analysis Reports* provided to schools; no scaled scores or performance levels
History and Social Science	Only *Test Item Analysis Reports* provided to schools; no scaled scores or performance levels
Grade 6 Mathematics	Fully reported: student, school, and district scaled scores and performance levels
Grade 7 ELA	Fully reported: student, school, and district scaled scores and performance levels
Grade 8 ELA	Fully reported: student, school, and district scaled scores and performance levels
Mathematics	Fully reported: student, school, and district scaled scores and performance levels
Science and Technology/Engineering	Only *Test Item Analysis Reports* provided to schools; no scaled scores or performance levels
History and Social Science	Fully reported: student, school, and district scaled scores and performance levels
Grade 9 Science and Technology/Engineering Question Tryouts	No results generated or reported
Grade 10 ELA	Fully reported: student, school, and district scaled scores and performance levels
Mathematics	Fully reported: student, school, and district scaled scores and performance levels
Science and Technology/Engineering Question Tryouts	No results generated or reported
History and Social Science	Only *Test Item Analysis Reports* provided to schools; no scaled scores or performance levels

C. What's New for MCAS 2001?

High School Competency Determination

MCAS 2001 test results will be the first MCAS results used to determine student eligibility for a high school diploma. Students who are members of the graduating class of 2003 are required to pass *both* the grade 10 MCAS English Language Arts *and* the grade 10 MCAS Mathematics tests as one condition for receiving a high school diploma (students must also meet all local graduation requirements). A scaled score of 220 (the lowest score in the *Needs Improvement* performance level) or higher will be considered a passing score on each test. Students who fail either or both tests will be given multiple opportunities before the end of their senior year to retake the test(s) they did not pass. See the Department's website (www.doe.mass.edu/mcas) or call 1-800-737-5103 for more information.

New Policy on Approved Bilingual Dictionary Use for Students with Limited English Proficiency

The Department of Education, in its continuing effort to provide maximum access to the MCAS tests for all students, has approved a new test accommodation for limited English proficient (LEP) students. Beginning with the MCAS 2001 administration, any student who is or has been an LEP student may use an approved bilingual (word-to-word) dictionary or electronic translator during MCAS testing. Approved bilingual dictionaries and electronic translators are limited to those that provide word-to-word translations, without definitions.

A list of approved bilingual dictionaries, including dictionary references for 55 languages spoken in Massachusetts schools, appears in the June 2000 Department publication, *Approved Bilingual Dictionaries for Use on the MCAS by Students with Limited English Proficiency*. This publication is posted on the Department of Education website at www.doe.mass.edu/mcas

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III. MCAS 2001 English Language Arts Tests

The MCAS 2001 English Language Arts (ELA) tests are based on the 1997 *English Language Arts Curriculum Framework*.[5]

A. MCAS English Language Arts Guide *Update*

The following information updates and supersedes that given in the MCAS publication, *Guide to the Massachusetts Comprehensive Assessment System: English Language Arts* (1998).

ELA Composition Test

- The MCAS English Language Arts Composition test (grades 4, 7, 8, and 10) no longer includes a "Short Session" (short composition).
- The scoring area for ELA Compositions labeled "Focus and Development" in the *Guide* is now referred to as "Topic Development."
- A separate ELA Composition Make-Up Test is issued and administered at each grade level (grades 4, 7, 8, and 10). Each grade's Make-Up Test uses a different writing prompt than the one appearing on the regularly scheduled ELA Composition test for that grade. Both writing prompts are considered common items.

[5] A draft of a second edition of the *English Language Arts Curriculum Framework*, which incorporates minor refinements to and clarifications of the learning standards, was submitted to the Massachusetts Board of Education for review in June 2000. The public comment period on this document ended October 2, 2000; the Board accepted this draft in November 2000. Beginning with the 2002 MCAS administration, MCAS ELA tests will be based on the learning standards as presented in this 2000 *Framework*.

Reporting Categories

Individual students receive one MCAS English Language Arts score/performance level.

For grade 3, this ELA score/performance level is generated from the results of the Grade 3 Reading Test. In 2001, results for this test will be based on multiple-choice items only.

For grades 4, 7, 8, and 10, a student's results from both the ELA Composition and the ELA Language and Literature tests are combined to generate one overall English Language Arts score for that student. These students also receive comments from scorers about their ELA Compositions.

School and district MCAS English Language Arts results are reported under the following MCAS reporting categories:

- Language
- Literature
- Composition *(not applicable to the Grade 3 Reading Test)*
  - Topic Development
  - Use of Standard English Conventions

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B. What's New for ELA 2001?

MCAS Grade 3 Reading Test

In response to the Commonwealth's increasing emphasis on early literacy, an MCAS Grade 3 Reading Test will be administered for the first time in April 2001. The 2001 test is similar in structure to the grade 4 MCAS ELA Language and Literature test; it is based exclusively on learning standards 4 through 17 of the 1997 Massachusetts *English Language Arts Curriculum Framework*'s Language and Literature strands.

MCAS Grade 7 English Language Arts Test

In order to provide middle schools with time to target English language arts instruction for students before they advance to high school, the MCAS grade 8 ELA test is being moved to grade 7. The MCAS 2001 administration will include MCAS English Language Arts tests for both grades 7 and 8; 2001 will mark the final administration of the grade 8 MCAS ELA test.

No Matrix-Sampled Items on the Grade 8 English Language Arts Test

Only common items will appear on the 2001 grade 8 MCAS English Language Arts test. No matrix-sampled items are included because the grade 8 English Language Arts test will be administered for the final time in 2001. Therefore, the 2001 test includes fewer items than have been included on previously administered grade 8 MCAS ELA tests.

Since MCAS student scores have always been based on common items only, comparisons of 2001 grade 8 ELA student scores with past years' results are still valid. School and district Subject Area Subscore results for grade 8 ELA, however, will not be parallel to past years' reported results.

High School Competency Determination

MCAS 2001 test results will be the first MCAS results used to determine student eligibility for a high school diploma. Students who are members of the graduating class of 2003 are required to pass the grade 10 MCAS English Language Arts test (both components) in order to receive a high school diploma.[6] A scaled score of 220 (the lowest score in the *Needs Improvement* performance level) or higher in English Language Arts will be considered a passing score. Students who fail will be given multiple opportunities before the end of their senior year to retake the test. See the Department's website (www.doe.mass.edu/mcas) or call 1-800-737-5103 for more information.

[6] Grade 10 students who are members of the graduating class of 2003 are also required to pass the grade 10 MCAS Mathematics test and meet all local graduation requirements in order to receive a high school diploma.

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